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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,092	12/27/2001	Yasutaka Ito	213163US2PCT	3826
22850	7590	10/06/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PAIK, SANG YEOP	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/926,092

Applicant(s)

ITO ET AL.

Examiner

Sang Y Paik

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/26/04, 8/11/04, 7/15/04, 4/15/04, 3/8/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3742

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 3, 4, 5, 10, 13 and 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12, 14, 15, 16, 18, 19 of copending Application No. 10/618,651. Although the conflicting claims are not identical, they are not patentably distinct from each other because the provisional application includes all the recited elements of the application 09/926,092 including the sintered ceramic plate, the heating element having at least two circuits, the bottomed hole for the sheath type-thermocouple pressed thereto by an elastic body or screw, and the claimed distance between the bottomed hole to the heating surface. The more specific invention in essence anticipates the broader invention of this application '092.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushikoshi et al (US 5,306,895) or Arena et al (US 5,635,093) in view of Masanao (JP 09-045752), Hecht et al (US 5,877,475) or Sasada et al (US 5,176,451).

Ushikoshi et al shows a ceramic heater including the structure claimed including a sintered ceramic plate with a bottom hole where the bottom hole is formed relatively nearer to the heating surface than the heating element which is made of tungsten and a temperature sensor such as a sheathed thermocouple disposed in the bottom hole (see Fig 32). Arena et al also shows a heater including a ceramic substrate with a heating element embedded therein with a bottom hole formed relatively nearer to the heating surface than the heating element for providing a temperature sensor such as a thermocouple therein (see Fig 2). However, neither Ushikoshi et al nor Arena et al shows the temperature sensor pressed on the bottom portion of the hole that is formed relatively nearer to the heating surface.

Masanao shows a heating plate having a bottom hole formed on the opposite side of the upper heating surface with a sheathed temperature sensor such as a thermistor. Masanao further shows that the temperature sensor is arranged near to the upper portion of the heating plate (see Figures 4,5 and 7). Although Ushikoshi et al and Arena et al both show the bottom holes nearer

Art Unit: 3742

to the upper heating, Masanao is further applied to show that placing a temperature sensor near the heating surface is obvious to one of ordinary skill in the art to more accurately measure the heating surface, and while the claimed distance is not explicitly shown, it would also have been obvious to provide the bottom hole close to the heating surface including the claimed range to the heating temperature can be more accurately measured.

Hecht et al and Sasada et al show a temperature sensor with a spring means to press the temperature sensor to a temperature measuring surface. In view of Hecht et al or Sasada, it would have been obvious to one of ordinary skill in the art to adapt Ushikoshi et al or Arena et al in view of Masano with the temperature sensor pressed against the heating surface to make a close and direct contact with the heating surface to more effectively measure the heating temperature with the pressing means such as spring or any other suitable means.

With respect to claim 4, Arena et al further shows the heating element being divided into a plurality of circuits.

With respect to claim 13, it would have been obvious to one of ordinary skill in the art to provide the bottom hole using a sandblast instrument or drilling since such would have conventional means to form a hole.

With respect to claim 15, Arena et al shows a control unit connected with the temperature sensor.

5. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushikoshi et al or Arena et al in view of Masanao, Hecht et al or Sasada et al as applied to claims 1-5, 10 and 13-15 above, and further in view of Yoshida et al (US 6,080,970) and Kubota et al (US 5,643,483) or Tsuyuki et al (US 5,068,517).

Art Unit: 3742

Ushikoshi et al or Arena et al in view of Masanao, Hecht et al or Sasada et al discloses all the structure claimed except the heating element having a flat shape having the claimed ratio.

Yoshida et al shows a ceramic heater having a heating element having a flat shape. Kubota et al and Tsuyuki et al show ceramic heaters having the heating element having the claimed width and thickness within the claimed ratio.

In view of Yoshida et al and Kubota or Tsuyuki , it would have been obvious to one of ordinary skill in the art to adapt Ushikoshi et al or Arena et al, as modified by Masanao, Hecht et al and Sasada et al, with a heating element having a flat shape with the claimed ratio to further improve the heating distribution as well as to maintain the desired heating capacity of the heating element.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y Paik whose telephone number is 703-308-1147. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S - r  
Sang Y Paik  
Primary Examiner  
Art Unit 3742

syp